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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 24

Application Number: 08/810,620
Filing Date: February 28, 1997
Appellant(s): HICKMAN, PAUL L.

Paul L. Hickman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/26/2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1-22 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

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(9) Prior Art of Record

5,913,920	Adams et al.	6-1999
5,909,545	Frese, II et al.	6-1999
6,341,477	Pitkin et al.	8-1994

Clark et al. "DAWGS - A Distributed Compute Server Utilizing Idle Workstations," 5th Distributed Memory Computing Conference, Volume 2 (April 8-12, 1990) pp.732-41.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-14, 18, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. US patent 5,913,920 and further in view of Frese et al. US patent 5,909,545 and Pitkin et al. US patent 5,341,477.

As per claim 1, Adams teaches a cluster computer system comprising: a plurality of network accessible computers [workstations] having unique address with respect to each other, each including a central processing unit and non-volatile memory, where each of said computers is connected to a network [see fig.1], wherein the computer implement host computer programs [fig.2 RC 116, 216] which permit the computere to operate as host computers for client computers coupled to the network, the client computers controlling the functionality of the host computers [col. 6 lines 17-21], input devices at the client computer can be used to generate inputs to the host computers [apparent from col.6 lines 17-49], and such that image information generated by the host computers can be view by the client computers [col.6 lines 37-49].

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Adams does not specifically teach downloading a client program from the host computer to run on the client computer to enable remote control of the host computer.

Frese teaches a system for remotely controlling application programs running in a host computer over the Internet using a browser at the client computer. Frese teaches downloading remote control module from the host to the client to enable remote control without preinstalling remote-control software on the client computer. This allows any client computer with a browser and Internet access to participate. Hence, It would have been obvious for one of ordinary skill in the art to modify Adams to use downloadable remote-control program because it would have improved the flexibility of the system and expand the system for use over the Internet.

Adams does not specifically teach a cluster administration computer to monitor the operation of the assessable computers.

Pitkin teaches an administration computer [broker] for computer network server selection. The broker receive request from client computer and suggest one of the network assessable computer [server] that best provide the service to the client. The broker monitors the operation of the network accessible computers [see abstract, col.6 lines 60-68].

It would have been obvious for one of ordinary skill in the art to combine the broker technology of Pitkin with the system of Adams because it would have enabled automated matching and managing the sharing of the workstations.

As per claim 2, it is inherent that Adams computers can communicate over a plurality of communication channels.

As per claim 3, it is inherent that the accessible computer has bus controller and volatile memory [internal hardware circuitry of a computer].

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As per claim 4, Frese teaches a system for remotely controlling application programs running in a host computer over the Internet using a browser at the client computer. Hence, it is apparent that the system as modified would have used TCP/IP and browser.

As per claims 13 and 18, they are rejected under similar rationale as for claim 1 above. Pitkin teaches the administration computer [broker] provides the computer address such that the client computer become associated with the host computer. [Inherent from the process of the broker suggesting a server to the client (col.4 lines 65-68). It is also apparent that network address information of the suggested server must be given to the client in order for the client to connect to the suggested server.]

As per claim 14, Pitkin teaches the administration computer chooses an accessible computer that is available and desired requirement to perform requested by the client computer [col.2 lines 42-49]. Hence, Adams system as modified would have the administration computer determines a suitable host computer (remote computer).

As per claims 5-12, 21, and 22, the recited limitations are apparent in the system as modified.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. combination above and further in view of Clark et al. "DAWGS - A Distributed Compute Server Utilizing Idle Workstations".

As per claim 15, Adams does not teach loading personal state of a client. It is well known in the art of remote computing to save state information for later restart or continue processing. Clark teaches a system providing user with batch and interactive control of remote computer [page 734 col.1]. Clark teaches saving and loading program state information and user configuration data before starting the remote control session [p.734

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top of col.2]. It would have been obvious for one of ordinary skill in the art to provide saving and loading client state because it would have enabled the client to save his configuration and restart where he left off.

As per claim 16, it is well known in the art to reset the computer when it is not operating correctly. It would have been obvious for one of ordinary skill in the art to provide a reset capability in the system as modified because it would have enable remote control and diagnostic of the computer.

As per claim 17, it is apparent that the program implementing Adams system as modified would be embodied on a computer readable medium.

(11) Response to Argument

Regarding group 1 (claims 1-7, 9, 12 and 21), referring to Adams col.1 lines 62-65, applicant agrued that Adams teaches away from using the Internet. The argument is not persuasive because Adams asserted that the prior art approach used was not applicable to a collaborative environment; Adams did not assert that the Internet was not applicable to a collaborative environment. Col.1 lines 62-65 is part of a paragraph where Adams dicussed a prior art approach for remotely rendering a screen over the Internet. Lines 62-65 recites "**This approach** requires the explicit support ... is fundamentally driven by the client (ie receiving) terminal. **It is** not directly applicable to a collaborative working environment" (emphazis added).

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Reading the paragraph as a whole (col.1 lines 49-65), the phrase "It is" in the last sentence is referring to the "approach" described in the paragraph and not to the Internet itself. Therefore, Adams did not teach away from using the Internet.

Applicant argued that Adams does not teach plural network accessible computers (computers that are being controlled), each of which has a unique address. The argument is not persuasive. Although Adams specifically described a remote workstation being controlled from a local computer over a network, it is apparent from the context of Adams environment that there are plural other "remote" workstations and plural other "local" workstations on the network which can engaged in remote control sessions with each other. The disclosure merely described one particular session between a remote workstation and a local workstation. The fact that Adams permitted one remote workstation to be controlled by plural local workstations does not teach away from having plural remote workstations as argued by applicant. As per each computer having a unique address, this is clearly an inherent feature of a computer network in order unique distinguish the computers on the network.

As per the argument concerning Adams lacking the cluster administration computer. The limitation was addressed in the 103 rejection in combination with the teaching of Pitkin.

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As per the argument about combining Frese with Adams, Frese was used to teach how one can implement remote control session over the Internet. Frese teaches downloading special applet that run in a browser of a controlling computer to enable remote control of an application on a remote computer over the Internet. The argument raised by applicant concerning evaluating the application program is not persuasive because the question here is whether it is obvious to apply the remote control session method taught by Frese to the system of Adams. Adams lacked the teaching of how to extend the remote control over the Internet. Adams disclosed col.1 lines 49-62, the prior art approach was not adequate. Hence, given the teaching of Frese, one of ordinary skill in the art would have been motivated to apply Frese's method to Adams' system because it would have improved the system by enable remote control session over the Internet.

Regarding group 2 (claim 8), Adams teaches remotely controlling a PC [col. 5 lines 52-61, col.6 lines 18-22]. It is known that PC has software reset function (e.g. CTRL-ALT-DEL keys, or "Shutdown...", "Restart" menu). Hence, it is apparent that the reset function can be activated remotely.

Regarding group 3 (claim 10 and 11), Adams discloses using PCs with Windows operating sytem. It is known that Windows

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permits sharing of PC's storage device (e.g. shared drive or shared folders). Hence, it is apparent that Adams system has sharing of storage device for sharing/transferring information and files during collaboration/remote control session. It would have been obvious for one of ordinary skill in the art to manage the sharing of PC's storage device because it would have enable sharing and transferring of information/files between the computers during a remote control session.

Regarding group 4 (claim 13 and 18), Adams teaches remotely operate a computer from another computer [col.6 lines 17-21]. It is apparent from the context of Adams disclosure that the computer being controlled acts like a "virtual machine" as claimed. As per providing the address of the computer to be controlled, this is an inherent step in order for one computer to connect to another computer. As per the combination of the references, the examiner set for appropriate rationale for combining the references in the rejection.

Regarding group 5 (claim 14), Pitkins teaches the client provides to the broker a request containing a desired service and the broker match the client to an appropriate host meeting the request. A 'desired service' is a type of requirement information relate to the characteristic of the host (host that

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can provide the service). Hence the request contained requirement as claimed.

Regarding group 6 (claim 22), Pitkins teaches maintaining a list of available servers (computer that can provide a particular service) [col.6 lines 36-68]. It is apparent that Adams system as modified would have a list of remote computers available to be controlled in order to match a request for a remote control session.

Regarding group 7 (claim 15), the claim recites loading of personal state to the computer being controlled. Clark teaches saving state information of a process belonging a user so that it can be loaded onto another remote computer and restarted. The process is associated with the user; therefore the saved state is a "personal state" as claimed.

Regarding group 8 (claims 17 and 18), the apparent and obvious rationale for a reset function is as discussed for group 3 above.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,




Dung Dinh
Primary Examiner
Art Unit 2153

November 26, 2002

Conferees



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